Polymer Degradation and Stability **39** (1993) 405–407

CONTENTS OF VOLUME 39

Number 1

Combined effect of γ-irradiation and organic solvents on some structural properties of cotton fibers 1
M. A. MOHARRAM, N. ABDEL-HAKEEM, S. M. HAMMAD & O. M. MAHMOUD (Egypt)
Thermal degradation of γ-irradiated poly(vinyl acetate) 7
S. BASAN (Turkey)
Thermal degradation of polycarbonates: Reaction conditions and reaction mechanisms 13
I. C. McNEILL (UK) & A. RINCON (Venezuela)
A kinetic study of the thermal degradation of chitosan and a mercaptan derivative of chitosan 21
CARLOS PENICHE-COVAS, WALDO ARGÜELLES-MONAL (Cuba) & JULIO SAN ROMÁN (Spain)
Effect of polydispersity on the thermo-mechanical degradation of HDPE polymerized using a chromium catalyst 29
ALI HARLIN & TOMMI VAINIO (Finland)
Thermal, photo and γ-radiation degradation of mechanically loaded poly (vinyl alcohol) (PVA) 35
E. BAIMURATOV, D. S. SAIDOV & I. Y. KALONTAROV (Tadzhikistan)
Radiolysis of poly (phenyl methacrylate) 41
M. ZULFIQAR, S. ZULFIQAR, RIZWAN HUSSAIN & DIN MOHAMMAD (Pakistan)
Degradation of sulfur-containing aromatic polymers: Photodegradation of polyether-sulfone and polysulfone 47
T. YAMASHITA, H. TOMITAKA, T. KUDO, K. HORIE & I. MITA (Japan)
Degradation of polymer blends. Part VI: Photo-oxidation of polyethylene containing SIS triblock copolymers 55
M. GETLICHERMANN, M. TROJAN, A. DARO & C. DAVID (Belgium)
Photo-degradable polystyrene Part III: Preparation of photo-degradable styrene-co-vinyl ketones via *in-situ* dehydrative monomer generation from β-hydroxyketones . . 69
J. J. O'BRIEN, P. B. SMITH & D. B. PRIDDY (USA)
Antioxidants and light stabilizers. Part 1: Reactions of an indolinone nitroxide and phenoxy radicals. X-ray crystallographic analysis of 1-[*O*-(3,5-di-*tert*-butyl-4-hydroxy)-benzyl]-1,2-dihydro-2-methyl-2-phenyl-3-oxo-3*H*-indole and 3,5,3′5′-tetra-*tert*-butyl-stilbene-4,4′-quinone 73
PATRICIA CARLONI, LUCEDIO GRECI, PIERLUIGI STIPA, CORRADO RIZZOLI, PAOLO SGARABOTTO & FRANCO UGOZZOLI (Italy)
Preparation and characterisation of new copolymers containing hindered amine . . . 85
PAN JIANGQING, WENHAU CHENG, YU SONG & XINGZHOU HU (People's Republic of China)
Stabilization of polyurethane films against thermal and photo-oxidative degradation . 93
R. CHANDRA, B. P. THAPLIYAL & R. K. SONI (India)
Chemical and photochemical behaviour of phenolic antioxidants in polymer stabilization: A state of the art report, part II 103
JAN POSPÍŠIL (Czechoslovakia)
Re-evaluation of the stabilization mechanisms of various light stabilizer classes 117
F. GUGUMUS (Switzerland)
Calendar of events 137

Polymer Degradation and Stability (**39**) (1993) © 1993 Elsevier Science Publishers Ltd.

Number 2

Thermal degradation of blends of PVC with polydimethylsiloxane 139
I. C. MCNEILL (UK) & S. BASAN (Turkey)
Thermal degradation of blends of PVC with bisphenol A polycarbonate 145
I. C. McNEILL (UK) & S. BASAN (Turkey)
Contributions of gel sol and fractions to the thermal stability of γ-irradiated poly(vinyl acetate) 151
S. BASAN (Turkey)
Effect of refining with sodium hydroxide–urea solution on the acetylation behaviour of cellulosic fibres 155
SAMIA A. HELMY (Egypt)
Studies on the alkaline degradation of cellulose: Part II: Effect of the supermolecular structure of the pulp 159
SAMIA A. HELMY (Egypt)
Luminescence spectra of gamma-irradiated poly(methyl methacrylate) doped with aromatic hydrocarbons 163
A. M. EL-AGRAMY & B. A. HENAISH (Egypt)
The use of Lexan plastics as alpha particle and neutron dosimeters 169
A. A. ABOU EL-KHIER, M. EL-SHAHAWY, A. HUSSEIN,
H. EL-SAMMAN & M. EL-HOFY (Egypt)
Thermal behaviour of DVB-crosslinked polystyrene-supported dithiocarbamate-metal complexes 173
BEENA MATHEW, P. M. MADHUSUDANAN &
V. N. RAJASEKHARAN PILLAI (India)
Ageing and degradation of polychloroprene and its blends with ethylene–propylene diene rubber 179
AMIYA K. KALIDAHA, P. P. DE & ACHINTYA K. SEN (India)
Radiation stability of PTFE irradiated under various conditions 187
XIAOGUANG ZHONG, LI YU, JIAZHEN SUN & YUEFANG ZHANG
(China)
The thermal stability of polyethylene blends during heat-processing and short-term photooxidation 193
YE YONGCHENG (China)
Effect of stabilizers on residal stresses in weathered polyethylene 199
M. M. QAYYUM & J. R. WHITE (UK)
Degradation of magnetic tape: Support and binder stability 207
M. EDGE, N. S. ALLEN, M. HAYES, T. S. JEWITT (UK), K. BREMS
(Belgium) & V. HORIE (UK)
Antioxidants and light stabilizers. Part 2. On the thermal stability of indolinonic nitroxides 215
ANGELO ALBERTI, PATRICIA CARLONI, LUCEDIO GRECI,
PIERLUIGI STIPA & CARLO NERI (Italy)
The mechanism of action of hindered amine light stabilizers 225
PIETER GIJSMAN, JAN HENNEKENS & DAAN TUMMERS
(The Netherlands)
Photo-degradable polystyrene Part IV: Comparison of photo-degradation efficiency of random styrene-co-vinyl ketones (SVK) versus blends of polystyrene and SVK concentrates 235
M. J. HANNER, M. L. MCKELVY, KEVIN SIKKEMA & D. B. PRIDDY
(USA)
Polymer-bound hindered amine light stabilizers for improved weatherability in multi-phase polymer systems 241
JERRY L. HAHNFELD & DAVID D. DEVORE (USA)
Degradation of starch modified polyethylene bags in a compost field study. 251
HEBE B. GREIZERSTEIN, JOSEPH A. SYRACUSE &
PAUL J. KOSTYNIAK (USA)

Photo-induced chemiluminescence: A sensitive probe of oxidative changes in organic materials 261
JACK M. GROMEK & MICHELE R. DERRICK (USA)
Calendar of events 269

Number 3

The influence of temperature and catalyst residues on the degradation of unstabilized polypropylene 271
P. GIJSMAN, J. HENNEKENS & J. VINCENT (Netherlands)
Degradation of sulfur-containing aromatic polymers (II): Change in fluorescence spectrum of polyphenylenesulfide (PPS) during annealing 279
T. YAMASHITA, T. KUDO, K. HORIE, S. MAEDA & K. NAGATA (Japan)
Photo-oxidation of linear low density polyethylene: A comparison of photoproducts formation under natural and accelerated exposure 285
A. TIDJANI (Senegal) & R. ARNAUD (France)
Characterisation of solvent—extractable transformation products of high molecular weight hindered phenols in polypropylene subjected to ionising radiation in air or to thermal ageing 293
D. W. ALLEN, M. R. CLENCH, A. CROWSON & D. A. LEATHARD (UK)
Kinetics of polymer degradation involving the splitting off of small molecules: Part 9—thermal dehydrobromination of polyvinyl bromide 299
P. SIMON (Czechoslovakia)
Evaluation of antioxidant effectiveness in polyolefins 305
N. N. KOLESNIKOVA, N. K. TYULENEVA & Y. A. SHLYAPNIKOV (Russian Federat)
The effect of the monomer sequence distribution on the photooxidation of styrene-acrylonitrile copolymers 309
M. SARGENT, J. L. KOENIG & N. L. MAECKER (USA)
Studies on polymer stabilizers: Part V—Influences of structural factors on oxidative discoloration and thermal stability of polymers 317
S. YACHIGO, K. IDA, M. SASAKI, K. INOUE & S. TANAKA (Japan)
Studies on polymer stabilizers: Part VI—relationship between performance and molecular condition 329
S. YACHIGO, K. IDA, M. SASAKI, K. INOUE & S. TANAKA (Japan)
Preparation and thermal degradation of copolymers of 2-sulfoethyl methacrylate and methyl methacrylate 345
S. L. HURLEY, M. L. MITTLEMAN & C. A. WILKIE (USA)
FT–IR analysis of the photooxidation of styrene–acrylonitrile copolymers 355
M. SARGENT, J. L. KOENIG & N. L. MAECKER (USA)
HALS-phosphite combinations as light and heat stabilizers for polypropylene 367
Š. CHMELA (Czechoslovakia), W. D. HABICHER, U. HÄHNER (Germany) & P. HRDLOVIC (Czechoslovakia)
Reversible moisture effects in the climatic ageing of organic glass 373
O. V. STARTSEV, V. P. RUDNEV & B. V. PEROV (Russian Federat)
Study of the thermal degradation of some varnishing systems applied in the automobile industry 381
G. MATUSCHEK, H. STOFFERS, K. H. OHRBACH & A. KETTRUP (Germany)
Thermal decomposition of some divalent metal alginate gel compounds 393
A. A. SAID (United Arab Emirates) & R. M. HASSAN (Egypt)
XPS studies of radiation-induced structural changes in polyvinylidene fluoride 399
X. ZHONG, L. YU, W. ZHAO, Y. ZHANG & J. SUN (China)
Calendar of events 403